Cotton/Soybean Insect Newsletter

Volume 14, Issue #11 Edisto Research & Education Center in Blackville, SC 16 August 2019

Pest Patrol Alerts

The information contained herein each week is available via text alerts that direct users to online recordings. I will update the short message weekly for at least as long as the newsletter runs. After a new message is posted, a text message is sent to alert users that I have recorded a new update. Users can subscribe for text message alerts for my updates in two easy steps. Step one: register by texting **pestpat7** to 97063. Step two: reply to the confirmation text you receive by texting the letter "y" to complete your registration. Pest Patrol Alerts are sponsored by Syngenta.

Updates on Twitter

When noteworthy events happen the in the field, I will be sending them out quickly via Twitter. If you want to follow those quick updates, follow me at @bugdocisin on Twitter.

Row-Crop Field Day

On 5 September 2019 we will have a Row-Crop Field Day at the Edisto REC near Blackville, SC. Peanuts will be covered in the AM tour, and all other crops (cotton, soybean, etc.) will be covered in the PM tour. Pesticide license and CCA credits will be offered. A program will be available soon.

News from Around the State

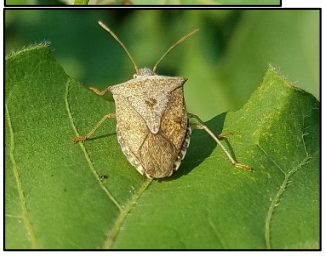
Jonathan Croft, county Ag agent covering Orangeburg County, reported that he did some shake samples in soybeans in his area and "found mostly VBC and immature green stink bugs. These soybeans were right on the Dorchester/Orangeburg County line. VBC and stink bugs were just under threshold." **Chris Talley**, county Ag agent in Anderson County, stated that it is "too dry up here…nothing for them to feed on" when I asked if there was any insect news from up his way. **Charles Davis**, county Ag agent in Calhoun County, reported that "cotton seems pretty quiet. Some stink bug sprays going out still, but most cotton in Calhoun and Richland counties is blooming out the top. Dry weather and heat have taken a big toll on the dryland crop. Squares and small bolls are falling like rain. Hopes of a top crop don't look good."

Cotton Situation

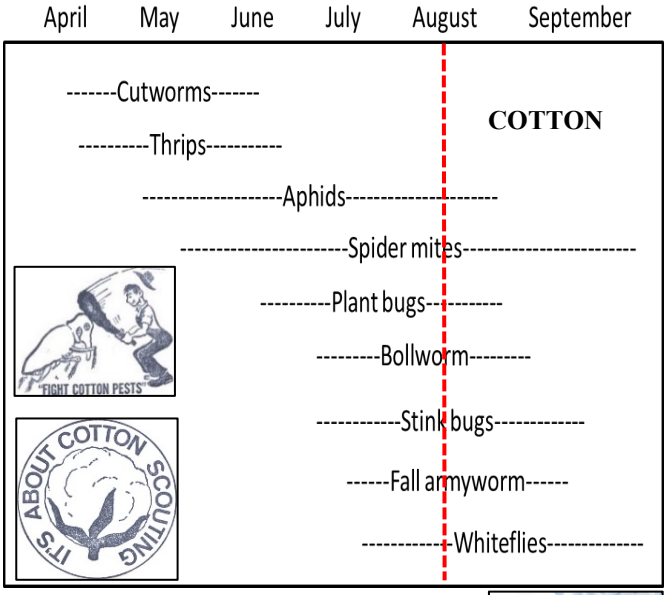
As of 11 August 2019, the USDA NASS South Carolina Statistical Office estimated that about 86% of the crop is setting bolls, compared with 63% at this time last week, 73% at this time last year, and 84% for the 5-year average. About 1% of the crop has bolls opening, compared with --% at this time last week, 1% at this time last year, and 1% for the 5-year average. The condition of the crop was described as 8% excellent, 52% good, 34% fair, 6% poor, and 0% very poor. These are observed/perceived state-wide averages.

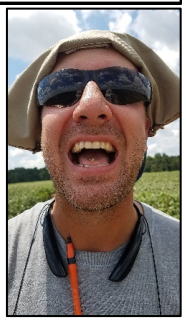
Cotton Insects

Well, it is still "stink bug month" in cotton for another week or two, but the crop is really moving along quickly. I keep seeing stink bugs in the field, but injury ratings from boll sampling are not high everywhere.



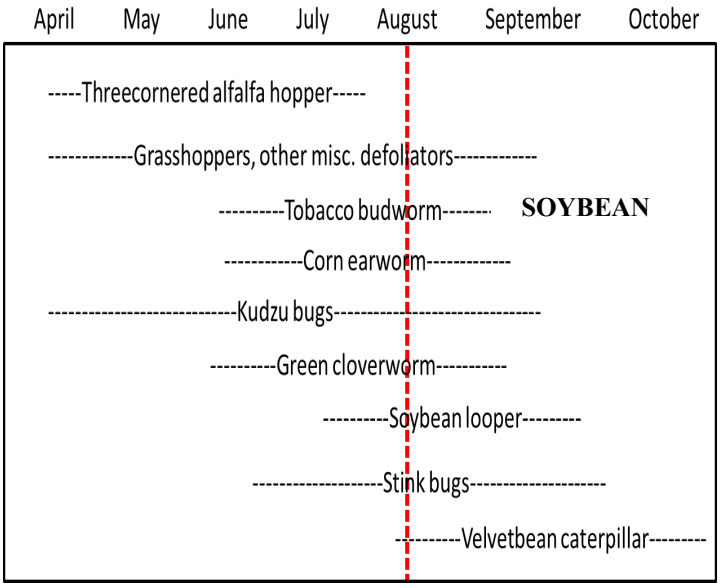
Keep checking bolls and looking for bugs through August or until you get to the 7th week of bloom. Many fields can be let go at that point, but keep using the dynamic boll-injury threshold until terminating insecticide applications for stink bugs is appropriate. Bollworm continues to be a no-show in my pheromone traps (see chart later in newsletter) and in the field. I did see a few moths today and found one larva. I ate this one in front of my crew to show them my frustration for not having pressure in my plots AND to celebrate for our growers who have not had a difficult time with that species this season.





Soybean Situation

As of 11 August 2019, the USDA NASS South Carolina Statistical Office estimated that about 62% of the crop is blooming, compared with 45% the previous week, 54% at this time last year, and 67% for the 5-year average. About 19% of the crop is setting pods, compared with 8% last week, 24% at this time last year, and 24% for the 5-year average. The condition of the crop was described as 5% excellent, 45% good, 48% fair, 2% poor, and 0% very poor. These are observed/perceived state-wide averages.



Soybean Insects

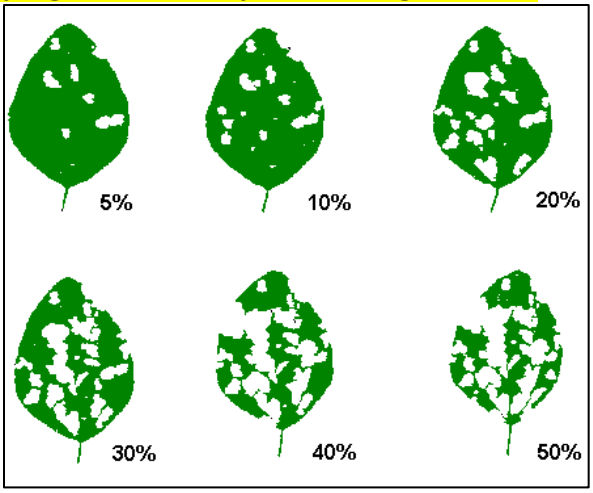
Grasshoppers, kudzu bugs, stink bugs, and some caterpillars are the main species showing up in soybeans now. We are starting to observe more defoliation in some fields. Green cloverworms and soybean loopers are responsible for most of the

defoliation, with swarms of grasshoppers contributing all they can. We have observed tremendous numbers of grasshoppers this season, and they are still going. Below is an immature not too far from "earning" its wings in the final molt from the immature stage. Plenty of fliers still out there also! One final thing to note on soybeans – numbers of TBW caught in pheromone traps outnumbered CEW many times over this past week, so "podworm" in soybeans might be TBW. If you are using a pyrethroid for podworm, you might miss them, if they are TBW. Identifying the moths flying around in soybeans is a good skill!

Treatment guidelines for soybean insects sampled with a sweep net.

Pest	Number per 10 sweeps	Comments
stink bug	1-2	
corn earworm	3	or 15% foliage loss
velvetbean caterpillar	10	or 15% foliage loss
soybean looper	15	or 15% foliage loss
kudzu bug	10 (nymphs)	1 nymph per sweep

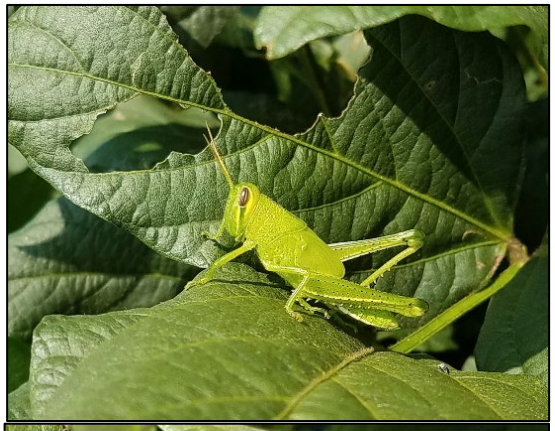
For other foliage feeders use a threshold of 30% defoliation before first bloom, 15% after first bloom.



Treatment thresholds (per rowft) for insects sampled with beat cloth.

Pest	Row width (inches)				
	38	30	21	14	7
stink bug	1	0.8	0.5	0.3	0.2
corn earworm*	2	1.6	1.1	0.7	0.4
velvetbean caterpillar	4-6	4	2.7	1.8	0.9
soybean looper	6-8	5.5	3.8	2.6	1.3

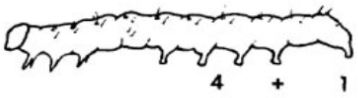
*this is the pod-feeding threshold for corn earworm



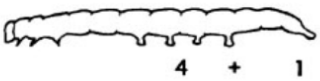
Moths of podworm (left) and tobacco budworm (right)

The pictures below will help you identify damaging caterpillars and the moths that deposit the eggs from which the larvae hatch. Being able to recognize the moths is a great skill to have, as it will let you know what to expect in the coming days when eggs are deposited and start hatching. Know these major species:

FIELD KEY TO COMMON SOYBEAN CATERPILLARS

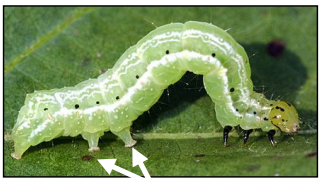


CORN EARWORM
4 + 1 pair prolegs
Curls up in hand
Black "warts" on body

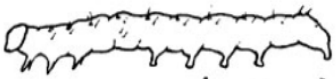


VELVETBEAN CATERPILLAR
4 + 1 pair prolegs
Very active when handled

SOYBEAN LOOPER
2 + 1 pair prolegs
Fatter at tail end
Looping movement



GREEN CLOVERWORM
3 + 1 pair prolegs
Not fatter at tail end
Looping movement



TOBACCO BUDWORM
4 + 1 pair prolegs
Curls up in hand
Black "warts" on body

(2017) Prepared by Jeremy Greene, Professor of Entomology

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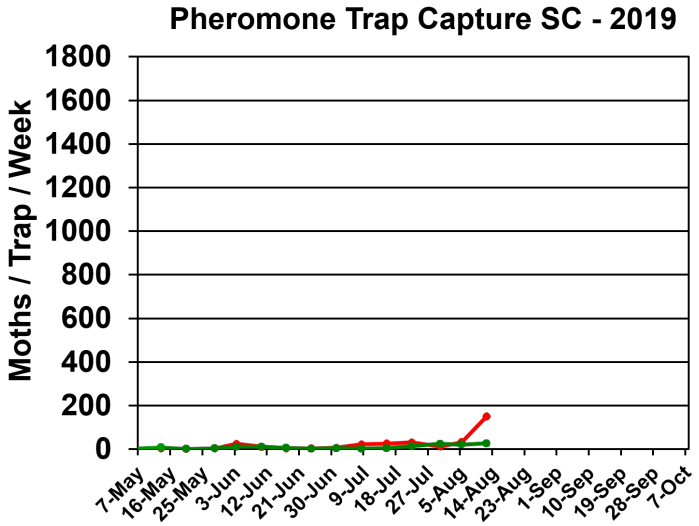
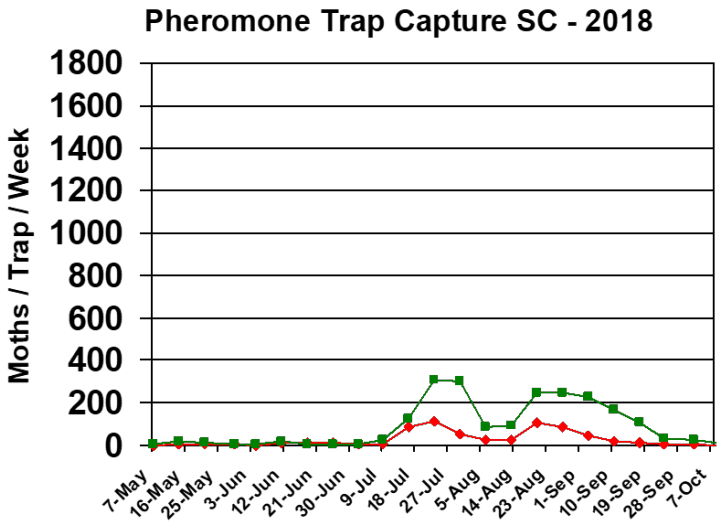
Public Service Activities

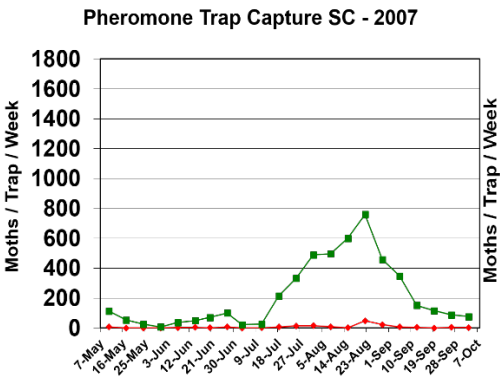
Bollworm & Tobacco Budworm

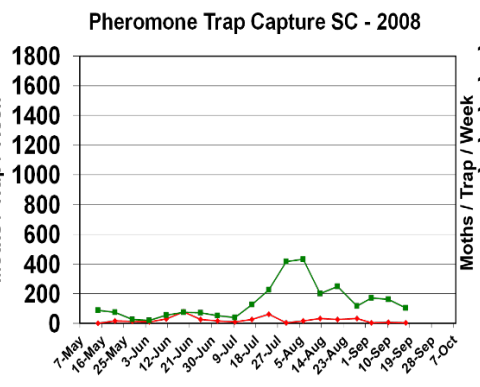
Captures of bollworm (BW) and tobacco budworm (TBW) moths in pheromone traps at EREC this season are shown below, as are the captures from 2018 for reference. Tobacco budworm continues to be important for our soybean acres and for any acres of non-Bt cotton. I provide these data as a measure of moth presence and activity in our local area near my research plots. The numbers are not necessarily representative of the species throughout the state.

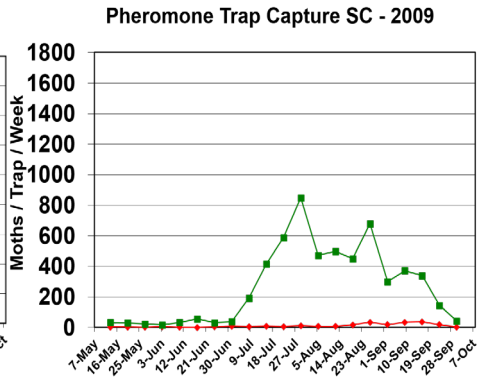


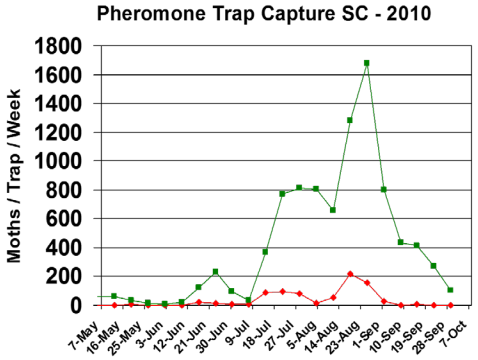


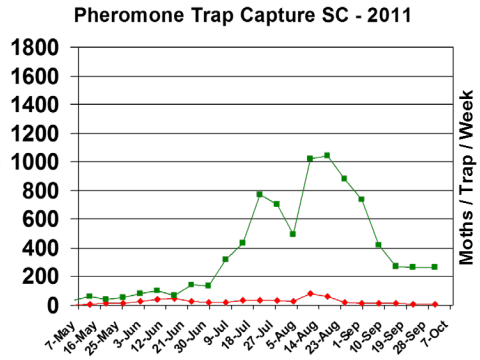
Trap data from 2007-2017 are shown below for reference to other years of trapping data from EREC:

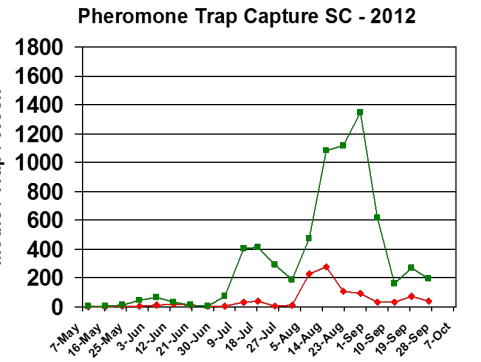


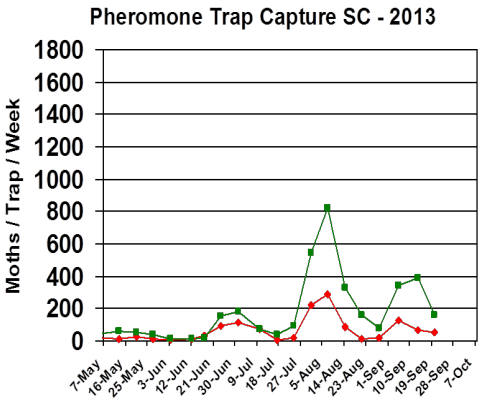


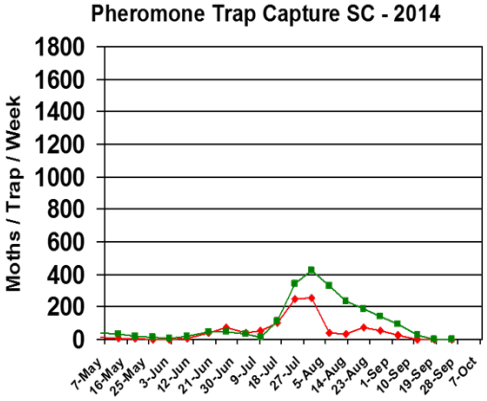


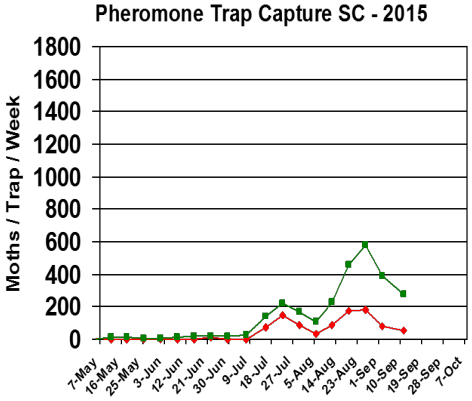


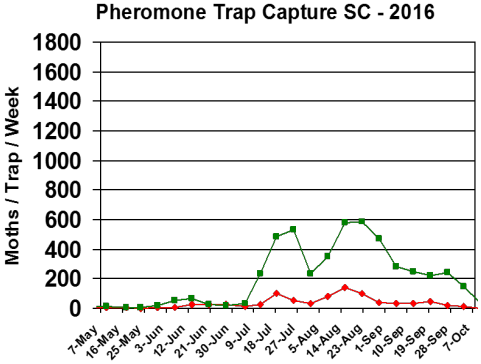


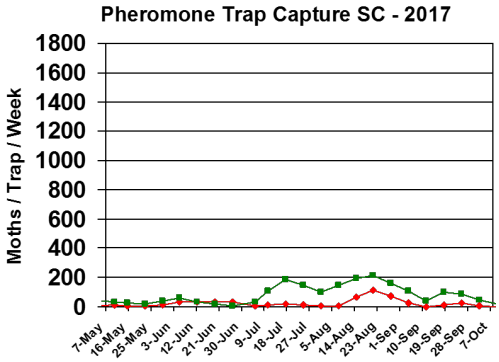








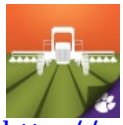




Pest Management Handbook – 2019

Insect control recommendations are available online in the 2019 South Carolina Pest Management Handbook at:
https://www.clemson.edu/extension/agronomy/pest%20management%20handbook.html

Free Mobile Apps: "Calibrate My Sprayer" and "Mix My Sprayer"



Download our free mobile apps called "Calibrate My Sprayer" and "Mix My Sprayer" that help check for proper calibration of spraying equipment and help you with mixing user-defined pesticides, respectively, in custom units (available in both iOS and Android formats):
http://www.clemson.edu/extension/mobile-apps/

Need More Information?

For more Clemson University Extension information: http://www.clemson.edu/extension/

For historical cotton/soybean insect newsletters:
https://www.clemson.edu/extension/agronomy/cotton1/newsletters.html

Sincerely,

Jeremy K. Greene, Ph.D.
Professor of Entomology

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